Listing of Claims:

1. (Currently Amended) A droplet ejection apparatus comprising:

a drive signal generator for generating a set of drive signals including a plurality of drive pulses;

a drive pulse selector for selecting a set of drive pulses in accordance with a print datum of each pixel; and

a head for ejecting a droplet from a nozzle ~~provided~~ corresponding to a channel, by changing a volume of the channel ~~according to~~ in accordance with the selected set of drive pulses~~selected~~;

wherein [[,]] the drive signal includes a micro-vibration pulse as at least one of the drive pulses to generate a micro-vibration of a meniscus in the nozzle in such a degree that the droplet is not ejected, said micro-vibration pulse ~~being formed of a~~ comprising at least one rectangular wave, including at least one rectangular wave which ~~include at least one micro-vibration pulse having~~ has a pulse width of (2n) AL, where AL is 1/2 of ~~the~~ an acoustic resonance period of the channel, and n is an integer not smaller than 1.

2. (Original) The droplet ejection apparatus of claim 1, wherein the micro-vibration pulse includes a rectangular wave having a pulse width of 2 AL.

3. (Original) The droplet ejection apparatus of claim 1, wherein the micro-vibration pulse includes a rectangular wave having a pulse width of 1 AL and a rectangular wave having a pulse width of 2 AL.

4. (Original) The droplet ejection apparatus of claim 1, wherein the micro-vibration pulse is applied before an ejection pulse for ejecting the droplet is applied.

5. (Currently Amended) The droplet ejection apparatus of claim 1, wherein the rectangular wave having a pulse width of (2n) AL is applied at ~~the~~ a last timing of the micro-vibration pulse.

6. (Currently Amended) The droplet ejection apparatus of claim 5, wherein ~~the~~ an ejection pulse for ejecting the droplet is applied after 1 AL from ~~the~~ a time when the rectangular wave having the pulse width of (2n) AL is applied at the last timing of the micro-vibration pulse.

7. (Currently Amended) The droplet ejection apparatus of claim 1, wherein ~~the~~ an ejection pulse for ejecting the droplet ~~comprising~~ comprises:

a first pulse formed of a rectangular wave to expand the volume of the channel, and 1 AL later, ~~restoring it~~ to restore the volume of the channel to an original state; and

a second pulse formed of a rectangular wave to reduce the volume of the channel, and a prescribed period later, ~~restoring it~~ to restore the volume of the channel to the original state,

wherein a voltage of the first pulse Von is higher than a voltage of the second pulse Voff.

8. (Currently Amended) The droplet ejection apparatus of claim 7, wherein at least one rectangular wave of the micro-vibration pulse ~~is formed of a rectangular wave which~~ reduces the volume of the channel, and subsequently ~~restore~~ restores the volume of the channel to the original state, and a voltage of the micro-vibration pulse is the same as the voltage Voff of the second pulse in the ejection pulse.

9. (Currently Amended) The droplet ejection apparatus of claim 1, wherein ~~the~~ a maximum extrusive amount of the meniscus by the micro-vibration pulse is not larger than a radius of the nozzle.

10. (Currently Amended) The droplet ejection apparatus of claim 1, wherein the head comprises an ~~electric - mechanical~~

electrical-mechanical conversion element which changes the volume of the channel ~~by the~~ in accordance with application of at least one of the ejection pulse ~~or~~ and the micro-vibration pulse.

11. (Currently Amended) The droplet ejection apparatus of claim 10, wherein the ~~electric - mechanical~~ electrical-mechanical conversion element comprises a piezoelectric material which forms a partition wall between adjacent channels, and which is deformed in a shearing mode by applying a voltage.

12. (Original) The droplet ejection apparatus of claim 1, wherein the droplet is an ink droplet.

13. (Currently Amended) A drive method for a droplet ejection head, comprising:

generating a set of drive signals including a plurality of drive pulses by a drive signal generator;

selecting a set of drive pulses in accordance with a print datum of each pixel by a drive pulse selector;

ejecting a droplet from a nozzle of the droplet ejection head corresponding to a channel, by changing a volume of ~~a~~ the channel ~~according to~~ in accordance with the selected set of drive pulses selected; ~~, from a nozzle of the droplet ejection head, the nozzle being provided corresponding to the channel,~~

~~wherein a micro-vibration pulse is applied onto the droplet ejection head to generate a micro-vibration of meniscus in the nozzle in such a degree that the droplet is not ejected,~~

wherein [[,]] the drive signal includes a micro-vibration pulse as at least one of the drive pulses to generate a micro-vibration of a meniscus in the nozzle in such a degree that the droplet is not ejected, said micro-vibration pulse ~~being formed of~~ comprising at least one rectangular ~~waves~~ wave, including at least one rectangular wave which ~~include at least one micro-vibration pulse having~~ has a pulse width of (2n) AL, where AL is 1/2 of ~~the~~ an acoustic resonance period of the channel, and n is an integer not smaller than 1.

14. (Original) The drive method of claim 13, wherein the micro-vibration pulse includes a rectangular wave having a pulse width of 2 AL.

15. (Original) The drive method of claim 13, wherein the micro-vibration pulse includes a rectangular wave having a pulse width of 1 AL and a rectangular wave having a pulse width of 2 AL.

16. (Original) The drive method of claim 13, wherein the micro-vibration pulse is applied before an ejection pulse for ejecting the droplet is applied.

17. (Currently Amended) The drive method of claim 13, wherein the rectangular wave having the pulse width of (2n) AL is applied at ~~the~~ a last timing of the micro-vibration pulse.

18. (Currently Amended) The drive method of claim 17, wherein ~~the~~ an ejection pulse for ejecting the droplet is applied after 1 AL from ~~the~~ a time when the rectangular wave having the pulse width of (2n) AL is applied at the last timing of the micro-vibration pulse.

19. (Currently Amended) The drive method of claim 13, wherein ~~the~~ an ejection pulse for ejecting the droplet ~~comprising~~ comprises:

a first pulse formed of a rectangular wave for expanding the volume of the channel, and 1 AL later, restoring ~~it~~ the volume of the channel to an original state; and

a second pulse formed of a rectangular wave for reducing the volume of the channel, and a prescribed period later, restoring ~~it~~ the volume of the channel to the original state,

wherein a voltage of the first pulse Von is higher than a voltage of the second pulse Voff.

20. (Currently Amended) The drive method of claim 19, wherein at least one rectangular wave of the micro-vibration pulse ~~is formed of a rectangular wave to restore~~ reduces the volume of the channel, and subsequently restores the volume of the channel to the original state, ~~after the volume of the channel have been reduced,~~ and a voltage of the micro-vibration pulse is the same as the voltage of the second pulse Voff.

21. (Currently Amended) The drive method of claim 13, wherein ~~the~~ a maximum extrusive amount of the meniscus by the micro-vibration pulse is not larger than a radius of the nozzle.

22. (Currently Amended) The drive method of claim 13, wherein the head comprises an ~~electric - mechanical~~ electrical-mechanical conversion element for changing the volume of the channel ~~by the apply ion~~ in accordance with application of at least one of the ejection pulse ~~or~~ and the micro-vibration pulse.

23. (Currently Amended) The drive method of claim 22, wherein the ~~electric - mechanical~~ electrical-mechanical conversion element comprises a piezoelectric material which forms

a partition wall between adjacent channels, and which is deformed in a shearing mode by applying a voltage.

24. (Original) The drive method of claim 13, wherein the droplet is an ink droplet.